GE Electronic TUBE — KEN-RAD

12SF5

Description and Rating

HIGH-MU TRIODE AMPLIFIER

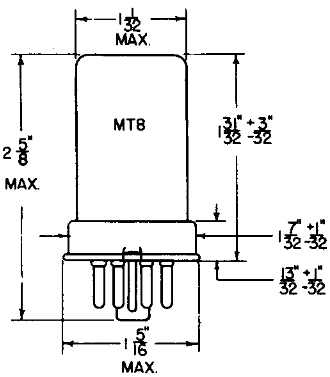
GENERAL DESCRIPTION

Principal Application: The 12SF5 is a heater-cathode type high-mu triode designed for service as a high gain audio-frequency amplifier and is especially useful in resistance-coupled amplifier circuits in a-c/d-c or battery operated equipment. Except for heater rating the 12SF5 and 6SF5 are identical.

Cathode: . . . . Coated Unipotential
Heater Voltage (A-C or D-C) . . . . . 12.6 Volts
Heater Current . . . . 0.15 Ampere
Envelope: . . . . MT-8 Metal Shell
Base: . . B6-23 Small Wafer Octal 6-Pin Phenolic

Mounting Position: . . . . Any
Direct Interelectrode Capacitances: *
Grid to Plate . . . . 2.4 μμf
Input . . . . 4.0 μμf
Output . . . . 3.6 μμf

PHYSICAL DIMENSIONS

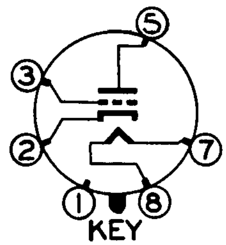


RMA 8-1

TERMINAL CONNECTIONS

Pin 1 - Metal Shell
Pin 2 - Cathode
Pin 3 - Grid
Pin 5 - Plate
Pin 7 - Heater
Pin 8 - Heater

BASING DIAGRAM



RMA 6AB
BOTTOM VIEW

MAXIMUM RATINGS

	Design Center	Absolute	
Plate Voltage	300	330	Volts
D-C Heater-Cathode Voltage	90	100	Volts

CHARACTERISTICS AND TYPICAL OPERATION

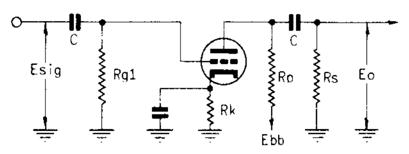
CLASS A AMPLIFIER

Heater Voltage	12.6	12.6	Volts
Plate Voltage	100	250	Volts
Grid Bias Voltage	-1	-2	Volts
Amplification Factor	100	100	
Plate Resistance	85000	66000	Ohms
Transconductance	1150	1500	Micromhos
Plate Current	0.4	0.9	Milliampere

* *Approximate values with metal shell connected to cathode.*

CLASS A RESISTANCE-COUPLED AMPLIFIER

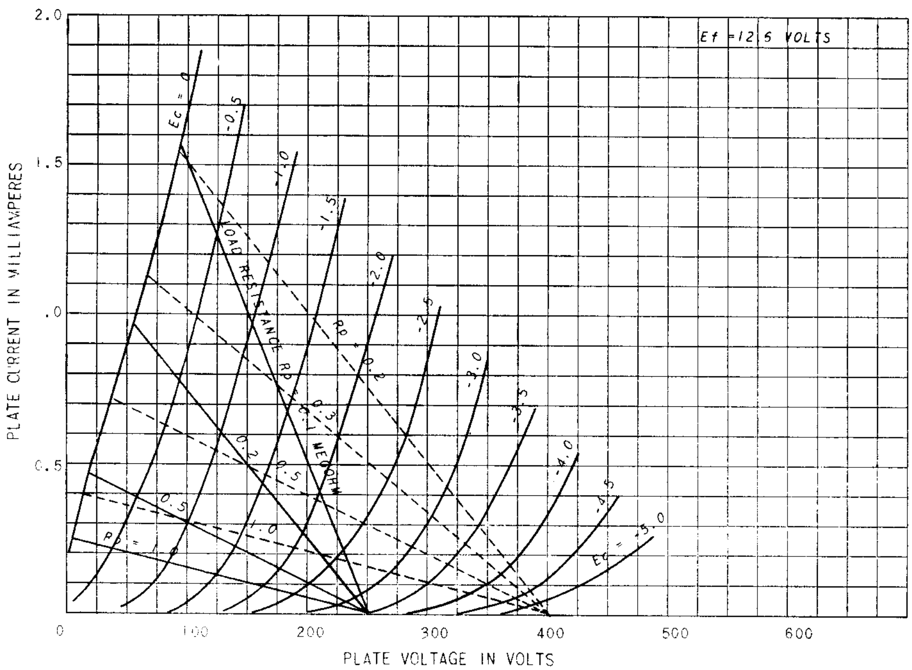
Rp Meg.	Rg1 Meg.	Rs Meg.	Ebb = 90 Volts			Ebb = 180 Volts			Ebb = 300 Volts		
			Rk	Gain	Eo	Rk	Gain	Eo	Rk	Gain	Eo
0.10	*	0.10	4300	25	5	2000	36	18	1300	40	37
0.10	*	0.24	4700	33	8	2200	43	26	1500	47	48
0.24	*	0.24	8200	37	10	3900	50	24	2400	54	45
0.24	*	0.51	9100	42	11	4300	54	29	3000	62	56
0.51	*	0.51	12000	46	12	6200	59	29	4300	66	55
0.51	*	1.0	13000	50	13	6800	63	36	5100	71	66
0.24	10	0.24	---	40	4	---	53	16	---	62	34
0.24	10	0.51	---	48	6	---	62	22	---	68	44
0.51	10	0.51	---	49	6	---	64	19	---	71	41
0.51	10	1.0	---	53	9	---	68	25	---	77	50



Note: Coupling capacitors (C) should be selected to give desired frequency response. Rk should be adequately by-passed.

Notes: 1. Eo is maximum RMS voltage output for five percent (5%) total harmonic distortion. 2. Gain measured at 2.0 volts RMS output. 3. For zero-bias data generator impedence is negligible. *Value of Rg1 is non-critical.

AVERAGE PLATE CHARACTERISTICS



AVERAGE CHARACTERISTICS

